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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/282,238	03/31/1999	ALESSANDRO FORIN	MS-77APP1(11	8338

7265 7590 07/31/2002
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EXAMINER

HO, THE T

ART UNIT PAPER NUMBER

2151

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/282,238

Applicant(s)

FORIN ET AL.

Examiner

The T. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- ☐ Interview Summary (PTO-413) Paper No(s). _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the application filed 03/31/1999.
2. Claims 1-32 have been examined and are pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-2 and 22-23 are rejected under 35 U.S.C. 102(e) as being unpatentable over Koppolu U.S Patent No. 6,401,099.

As to claim 1, Koppolu discloses a computer (computer system 20, lines 34-35 column 5) having a working memory (a memory system 26, line 36 column 5); demand-loadable components (server application, line 37 column 9) initially stored outside (100, Fig. 5) of the working memory, each component having an entry point (96-98, Fig. 3) comprising a constructor (82, Fig. 3) for an object (80, Fig. 3).

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As to claim 2, Koppolu further discloses demand-loadable components are initially provided in a location external of the computer (provided by the server application 100, lines 36-37 column 9).

As to the system of claim 22, note the discussion of the method of claim 1 above.

As to claim 23, note the discussion of claim 2 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-18, 21 and 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koppolu.

As to claim 3, Koppolu as disclosed in claim 1 does not explicitly teach a Namespace. However, Koppolu teaches a moniker provides access (gain access, line 22 column 10) to one of the components (server application, line 37 column 9), as they become needed by applications (client programs 104, lines 21 column 10) running in the computer. It would have been obvious to consider the teaching above as a Namespace where applications can interact with the components because these monikers support a common interface structure defined by the monikers' class, and the

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client applications or programs can access any variety of data from any source by interacting with the moniker which operates as a name for another object.

As to claim 4, Koppolu as modified further discloses the Namespace provides access by managing demand-loading and unloading of the components (lines 49-65 column 1) in the working memory.

As to claim 5, Koppolu as modified further discloses the applications rely on the Namespace to furnish access to one of the components, as they become needed by one of the applications (if the object exists, the moniker 120 can simply return an interface pointer of the existing object to the client 104, and thus avoid creating the object again, lines 4-7 column 13).

As to claim 6, Koppolu as modified further discloses each component comprises an object (80, Fig. 5), providing an IUnknown interface (IUnknown interface, lines 67 column 9) in the object having the methods: add reference for incrementing a count of the number of applications requiring the object (maintains accurate reference counting, lines 65 column 26); release reference for decrementing a count of the number of applications requiring the object (again, maintains accurate reference counting, lines 65 column 26); wherein the Namespace is responsive to the count (the asynchronous moniker 150 calls the IbindStatusCallback::OnStartBinding function, lines 53-56 column 26).

As to claim 7, Koppolu as modified further discloses the component (100, Fig. 5) comprises an object (80, Fig. 5); providing an IUnknown interface (IUnknown interface, lines 67 column 9) in the object having a QueryInterface method (QueryInterface, line 1

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column 10) of providing access to the methods of the object (returns a pointer, line 3 column 10) to an application (client program 104, line 62 column 9) invoking QueryInterface.

As to claim 8, Koppolu as modified further discloses the object is a COM object (COM, line 65 column 9).

As to claim 9, Koppolu discloses a working memory (a memory system 26, line 36 column 5) wherein applications and objects may be loaded during run time (lines 27-38 column 1); a Namespace in the computer (please note the discussion of claim 3 above); running an application in the computer (client programs 104, lines 21 column 10); the application calling a demand-loadable object (gain access to object 80, lines 23-24 column 10) by causing the name of the object to be presented to the Namespace (based on a name that references the object using a moniker 120, lines 24-25 column 10); in response, the Namespace returning to the application an IUnknown pointer of the object (146, Fig. 5); upon return of the IUnknown pointer, the application using it to call a QueryInterface method of the object (any interface pointer that the client obtains to an interface of the object 80 can be used to call the QueryInterface function, lines 6-8 column 10) and request a pointer to a desired interface (a pointer to the interface requested by the client, lines 52 column 13); the QueryInterface method returning the desired interface (QueryInterface function can be call and returns a pointer to the interface, lines 1-4, column 10), whereby the application can invoke a desired method through the interface (client program can directly call member functions on the interface

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of the named object 80, lines 63-64 column 13). Note claim 3 above for the discussion of a Namespace.

As to claim 10, Koppolu as modified further discloses a loader (IPersistMoniker::Load Function, line 31 column 31), and wherein the Namespace determines whether the name of the object is currently registered in said Namespace (moniker 120 determine whether the object already exists, line 2-4 column 13), and, if so, carries out the step of returning said pointer (if the object exists, returns a pointer, lines 4-6 column 13); if not, causes the loader to load said object into said working memory and registers the name in the Namespace (the IPersistMoniker::Load function loads the object, lines 31 column 31), and then carries out the step of returning said pointer.

As to claim 11, Koppolu as modified further discloses the object has a constructor (82, Fig. 3) and an entry point (96-98, Fig. 3); the loader (IPersistMoniker::Load Function, line 31 column 31) invoking the constructor (lines 32-49 column 31); the constructor finding the entry point of the object and calling an executable at the entry point (arrow from 90 to 96, Fig. 3); the executable causing space in the working memory (represented in the computer system 20, line 28 column 8) to be allocated for a VTable (virtual function table 84, lines 29-30 column 8), an Interface (interface of the object, lines 39-40 column 8) and an Implementation of the object (member functions 86-88, lines 30 column 8) and producing a pointer to the memory space (obtaining a pointer, line 41 column 8), the pointer comprising the IUnknown pointer (note the discussion of claim 9 above).

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As to claim 12, Koppolu as modified further discloses loading the VTable, Interface and Implementation in the space in the working memory allocated therefore (represented in the computer system 20, line 28 column 8); initializing the state of the object (loads the object with its persistent state, lines 32-33 column 32) including the VTable and interface pointers.

As to the system of claim 13, note the discussions of the method of claims 9-10 above.

As to claim 14, note the discussions of claims 9 and 11 above.

As to claims 15, 16 and 17, note the discussions of claims 10, 11 and 12 above, respectively.

As to the system of claim 18, note the discussions of the method of claims 1 and 9 above. Koppolu as modified further discloses the application needs to access to the one object at a particular time during the running of the application (lines 21-37 column 10).

As to claim 21, Koppolu as modified further discloses the Namespace permits the one object to remain in working memory after being no longer needed by the application in order to permit other applications to access the one object (if the object exists, return pointer to the client, and thus avoid creating object again, lines 1-8 column 13).

As to claims 24-29, note the discussions of claims 3-8 above, respectively.

As to claims 30-31, note the discussions of claims 10-11 above, respectively.

As to claim 32, note the discussion of claim 11 above.

5. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koppolu in view of Atkinson US Patent No. 6,263,379.

As to claim 19, Koppolu as modified further discloses the application is programmed to notify the Namespace whenever it no longer needs access to the one object (client call functions through the moniker interface to abort the data access, lines 14-16 column 3). However, Koppolu does not teach unloading object.

Atkinson teaches releasing object when it is no longer needed (lines 10-32 column 43). It would have been obvious to apply the teachings of Atkinson to the system of Koppolu because this provides empty memory space for the other objects to register for processing.

As to claim 20, note the discussion of claim 19 above. Koppolu as modified further discloses the application is programmed to notify the one object it no longer needs access to it, whereby the object notifies the Namespace the object is no longer needed (lines 9-35 column 17).

Conclusion

Please refer to the references listed on the attached PTO-892, which are not relied upon in the claim rejections detailed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to The T. Ho whose telephone number is 703-306-5540. A voice mail service is also available for this number. The examiner can normally be

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reached on Monday – Thursday, 8:30 am – 6:00 pm, and every other Friday from 8:30 am – 5:00 pm.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C 20231

Or fax to:

- AFTER-FINAL faxes must be signed and sent to (703) 746 – 7238
- OFFICAL faxes must be signed and sent to (703) 746 – 7239
- NON OFFICAL faxes should not be signed, please send to (703) 746 – 7240

t.h
July 28, 2002



ST. JOHN COURTENAY III
PRIMARY EXAMINER